

KRISHNA INSTITUTE OF MEDICAL SCIENCES KARAD.
REGULATIONS AND SYLLABUS FOR
THE ACADEMIC YEAR 2011-2012.

DIPLOMA IN PODIATRY

CURRICULUM OF THE COURSE

I YEAR

PAPER I - Basic and Clinical Aspects of Podiatry

II YEAR

PAPER II- Prevention, Surgical therapy and Rehabilitation

SYLLABUS

1. BASIC AND CLINICAL ASPECTS OF PODIATRY

1.1 Introduction:

What is Podiatry? Branches of Podiatry, Role of podiatrists- Screening, Management strategies-(Foot injury, Footwear, Ulceration, High grade clinical care), Education, Wound management & mini debridement, Patient intervention – (Guidelines on risk, Annual risk assessment, Wound care, Routine care ,Treating calluses and corns, Padding to distribute pressure, Trimming toe nails), Foot (size, style, region, construction), Suturing (common less of unilateral edema, bilateral edema, Professional advice on – (Prevention of foot problems, Proper care of foot, All ages, See with risk of amputation /DM /Arthritis), Why in Diabetics?

1.2 General Diabetology:

What is Diabetes?, Definition, GTT Fasting, Post prandial sugars, HBA1C, Why is it important in India?, Status of diabetic patients, Bare foot walking, Neuropathy, The different types of diabetes - Type 1, Type 2, FCPD, Causes and Risk factors of diabetes: Hereditary, Life style, Age, BMI & stress, Complications and treatment of diabetes: Neuropathy, Retinopathy, Nephropathy, Infections, Peripheral vascular disease, Coronary artery disease, Management of Diabetes: Diet & Exercise, Treatment: Oral hypoglycemic agents, Insulin (GLP1 analogues, DPP4 inhibitors

1.3 Definition:

Diabetic foot, Diabetic foot syndrome, Natural history, Neuropathy (Callus, plantar neuropathy ulcer, infection, diabetic gangrene, PVD (Peripheral Vascular Disease), concurrent dental illness

Primary risk factors: Neuropathy, Ischemic, Ischemic Neuropathy

Secondary Risk Factors: Late diagnosis, Risk of PVD (Peripheral vascular disease), Depression.

1.4. Structure / anatomy:

Shapes of foot. Skin/ Nails, Arches, Bones, Joints, Muscles, Vascular, Neurological
Callus : Present in review application of Ischemic callus, callus around ulcers

Functional Anatomy / Bio Mechanics : Standing, Stability, Walking, Midstance, Gait cycle, Gravity

Callus: Present in, Removal of callus, Application, Ischemic callus, Callus around ulcers

1.5 Bacteriology :

Pathogenesis infection of diabetic foot , Major pathogenesis causing foot infections, Colonisation, Infection, sepsis, Inflammatory response syndrome, Sepsis shock syndrome, ARDS (Acute respiratory disease syndrome), MOF(Multiple organ failure), Organism (Gram Positive – Cocci, Gram Negative – Bacilli, Anaerobic, Fungal, Mixed)

1.6. Clinical Pharmacology:

Drug administration, Drugs on CVS (Central vascular system), Drugs on CNS (Central nervous system), Drugs on Respiratory, Drugs on Gastrology, Drugs on Endocrine, Drugs on Rheumatic diseases, Route of administration, Excretion, Metabolism, Duration of drugs, Dosage of drugs

1.7. Practical Session:

History taking, Do's and don'ts of diabetic foot & Foot care, Identifying dressing material, Identifying foot deformities-Corn, Callus, Dressing procedure, Foot examination complete foot exam including jerks, Monofilament test, Foot pressure study, Identifying instruments used in foot department, Identifying foot medications, Sterilization & autoclaving of instruments, Handling sterilized materials

2. NUTRITION: Essential nutrients

Importance of nutrition in health and sickness- Essential nutrients functions, sources and requirements- Classification of foods and their nutritive value- normal requirements at different ages. Balanced diet for different age group.

Nutritional Problems

Nutritional deficiencies – Deficiencies, correction, treatment and referral – protein Energy/ malnutrition – vitamin and mineral deficiencies; Nutritional anaemia in women- under five nutrition – Supplementary food - Special diets of individuals for different age group.

PREVENTION, SURGICAL THERAPY AND REHABILITATION

3. DIABETIC FOOT MANAGEMENT

3.1 Medical Management:

Foot infection including cellulitis, Erysipelas, Necrotising, Fascitis, Osteomyelitis, Major classes of antibiotics, Grading system for foot disease, Wagner, Kings college London

3.2 Surgical therapy:

Surgical therapies for diabetic foot , Minor procedure, Wound dressing & management, Signs and symptoms of gangrene foot, Amputation in diabetic foot, Mechanical pressure relief devices and mechanical therapy, Wound healing, Major surgical procedures, Post operative care of wound, Prosthesis for amputees

3.3 Prevention of Ulcer:

Crutches, Invalid walker, total contact cast, Felt and foam dressing, Plantar metatarsal pads, Insoles, Outsoles, Prevention of diabetic foot

3.4 Foot wears:

Parts of the diabetic foot wear, classification of foot wear, Customized foot wear materials used in diabetic footwear – MCR, MCP, Medical management of diabetic foot and diabetic therapy

3.5 Rehabilitation:

Rehabilitation and psychological aspects, counselling of patients before and after amputation, Patient education

3.6 Pathogenesis of wound healing

Wound healing stages: Delay healing management, Split graft

3.7 Instrumentation / maintenance

Podiatry kit : Scalpel 11/15, Blades, Padding/strapping, Orthotics infection control, Insoles, Nippers /files /pumice stone, Skin sponge/nail file, Scissors/forceps, Gel foot care kit.

3.8 Maintenance of instrument:

Sterilization and infection control, Sterilization of instruments, Autoclaving, Classification of instruments based on sterilization techniques.

PRACTICAL SESSIONS

X-Ray, Doppler, Bio-thesiometry, Wound Dressing, Chiropody, Corn removal, Nail trimming, Total contact casting, Assisting Surgeons in wound management,

Maintaining equipments, Foot Wear, Materials used, Counseling patients, Post-Operative care

SCHEME OF EXAMINATION

Theory

Paper I	Basic and Clinical Aspects of Podiatry	100 Marks
Paper II	Prevention, Surgical therapy and Rehabilitation	100 Marks

Practical

		200 Marks
	2 cases	150 Marks
	Viva Voce	50 Marks

MERIT STATUS

Qualifying marks for pass shall be 50% in theory/ practical and internals

1. Candidates getting more than 75% in first attempt will be given 'distinction' in the Subject.
2. Candidates getting 60% aggregate marks in first appearance will be awarded 'first' class
3. Candidates getting below 60% will be declared passed in the "second class"
4. If the candidate takes more than one attempt to clear all papers. He/she shall be awarded 'pass' class.
5. Re-evaluation of answer paper is not permitted. Only re-totaling of theory answer paper is allowed, in the failed subjects.

RESOURCE MATERIAL/ METHODOLOGY FOR TEACHING:

Lectures, Slides using Over Head Projector (OHP) & LCD, Posters, Visual Aids, Pamphlets, Board, Models, Workshops, Seminars, Group activities, Documentation, Questionnaires as Tools, Demonstration of Equipments.

RECOMMENDED LIST OF TEXT & REFERENCE BOOKS FOR DIABETIC PODIATRY COURSE:

1. M M S Ahuja et al, *RSSDI text book of Diabetes Mellitus*, 2 :1, RSSDI (2002)
2. Pickup John and Williams Gareth, *Textbook of Diabetes*, 2:3, Black well publishing, (2003)
3. Kahn C Ronald, *Joslin's Diabetes Mellitus*, 14th edition, Lippincott Williams & Wilkins, (2005)
4. Alberti and P. Zimmet, *International textbook of Diabetes Mellitus*, 2: 2 John Wiley & Sons (1997)
5. Roith and Taylor, *Diabetes Mellitus Fundamental and Clinical*, 2nd edition, Lippincott Williams & Wilkins (2000)
6. Levin Marvin E, Foster Alethea VM and Edmonds M, *Diabetic Foot: A Clinical Atlas*, Jaypee, (2003)
7. Kozak George P et al, *Management of Diabetic Foot Problems*, W B Saunders Company, (1984)
8. Jeffcoate William and Macfarlane Rosamund, *The Diabetic Foot*, Chapman & Hall Medical, (1995)
9. Bal Arun et.al, *Handbook of Diabetic Foot Care*, 1st edition, DFSI, (2005)
10. Veves Aristidis, Giurini John M and Logerfo Fra, *The Diabetic Foot Medical and Surgical Management*, Humans Press, (2003)
11. Katsilambros N et al, *Atlas of The Diabetic Foot*, Wiley, (2003)
12. Boulton Andrew J M, Connor Henry & Cavanagh, *The foot in Diabetes*, John Wiley & Sons, (1994)

13. Frykberg Robert G, *The High Risk Foot in Diabetes Mellitus*, Churchill Livingstone, (1991)
14. Ramani Ananthakrishna, Kundaje G N and Nayak M, *Hemorheologic Approach in the Treatment of Diabetic Foot Ulc*, Treantal 400, (1990)
15. Grunfeld Carl, Holewski John J and Moss Kathry, *Diabetic Foot Ulcers: Prevalence And Prevention*, UPJOHN, (1990)
16. Ramakrishnan Pinjala and Rao P V, *Hand Book of Diabetic Foot for Limb Salvage*, Pinjala, (1997).